

## REMARKS/ARGUMENTS

Claims 21-27, 43-49, 53, 55, and 56 are pending in the present application. Claims 23 and 45 are amended. Claims 55 and 56 are added. Claims 28, 29, 50, 51, and 54 are withdrawn in response to Restriction Requirement dated October 28, 2005. Reconsideration of the claims is respectfully requested.

### **I. 35 U.S.C. § 103, Obviousness, Claims 21-27, 43-49, and 53**

The Examiner rejects claims 21-27, 43-49, and 53 under 35 U.S.C. § 103 as being unpatentable over Noma et al., U.S. Patent No. 6,954,902 (“Noma”) in view of Dawson, U.S. Patent No. 5,727,155 (“Dawson”). This rejection is respectfully traversed.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). For an invention to be *prima facie* obvious, the prior art must teach or suggest all claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). In this case, the Examiner has not met this burden because all of the features of these claims are not found in the cited references as believed by the Examiner. Therefore, the combination of Noma and Dawson does not reach the presently claimed invention recited in these claims.

Independent claim 21 of the present invention, which is representative of independent claims 43 and 53, reads as follows:

21. A method in a data processing system, comprising:
  - rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment;
  - receiving shared data from a client computer associated with a second participant, wherein the shared data includes information to be shared between the second participant and the first participant and access control information indicating an access control level for the first participant; and
  - displaying a virtual representation of the shared data in the rendered three-dimensional environment on the client computer associated with the first participant based on the access control level of the first participant.

With regard to claim 21, the Examiner states:

As per **claim 21**, Noma teaches a method in a data processing system, comprising:

- rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment (see Fig.4 and col.6, lines 10-19);
- receiving shared data from a client computer associated with a second participant, wherein the shared data includes information to be shared between the second participant and the first participant (see col.5, lines 48-61); and

displaying a virtual representation of the shared data in the rendered three-dimensional environment on the client computer associated with the first participant (see Fig.4 and col.5, lines 56-61).

Noma does not explicitly teach of the shared data includes access control information indicating an access control level for the first participant and displaying based on the access control level of the first participant.

Dawson teaches of shared data including access control information indicating an access control level for the first participant (see abstract and col.2, lines 5-17) and displaying based on the access control level of the first participant (see col.2, lines 38-43).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Dawson within the system of Noma by implementing access control and displaying based on that access control within the data processing method, apparatus, and program because Dawson teaches that in a shared (see title) environment, "relinquishing complete control" may be "detrimental" because it allows the participant to have access to information and make modifications to applications that the host or server might not want the participant to have or make such as in proprietary applications and/or data. Dawson further adds other motivation for including access control (see col.1, line 54 to col.2, line 26). Furthermore, Noma teaches in column 8, line 62-64, line with respect to Figure 13 that one user may wish to "impose limitations on other users" which clearly suggest the use of access control.

Office Action dated May 5, 2006, pages 3 and 4.

Noma teaches a method for "information sharing processing" which is "used for carrying out interactive communications such as a chat system among the users through a network." Noma, column 1, lines 10-16. Noma provides "a chat system which allows the users to make an access to the same web page with ease while having a chat and allows a user to immediately know whether another user is making an access to the same web page or not." Noma, column 2, lines 14-20. The chat server receives "shared data" showing a text of a chat and a behavior of an avatar from a client computer and transmits the text of the chat and the data showing the behavior of the avatar to another client computer. Noma, column 5, lines 56-60.

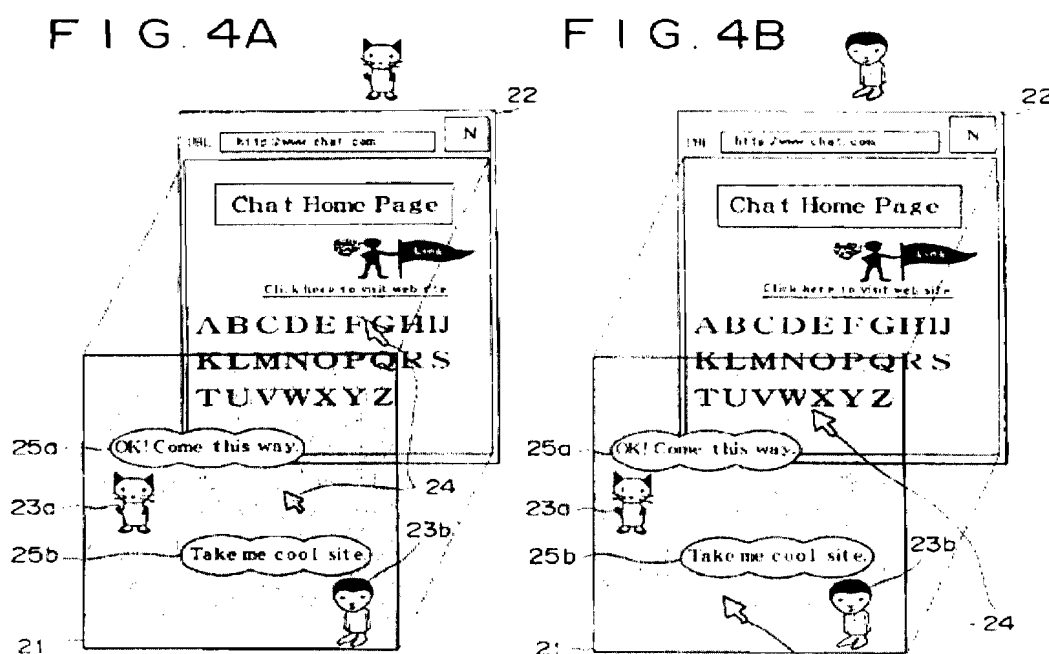
The shared data is pieces of information each comprising a chat character string, the type of the avatar, XY coordinates of the position of the avatar and an inspection URL for each user ID. A chat character string is a text entered by the chat partner. An example of the chat string character is "Take me cool site" which is displayed as a balloon **25b**. The type of the avatar is data specifying the avatar icon **23b**. In the example shown in **FIG. 13**, the type of the avatar is "Monkey" which specifies a monkey icon representing the avatar. The XY coordinates of the position of the avatar are XY coordinate values expressed in terms of units determined in advance to indicate a display position of the avatar icon **23b** on the chat layer **21**. In the example shown in **FIG. 13**, the XY coordinates are "360\*10". The inspection URL is a URL of a web page currently being inspected at the HTML file display layer **22**. In the example shown in **FIG. 13**, the inspection URL is "www.chat.com."

Noma, column 8, lines 44-61.

The client computer displays the web page based on the HTML file received from the server. At the same time, the client computer also displays a two-dimensional virtual space based on the shared data showing the behavior of the avatars and the text entered by the chat partners, superimposing the two-dimensional virtual space on top of the web page. Noma, column 5, line 62 – column 6, line 1. “In other words, the chat layer 21 is positioned in front of the HTML display layer 22.” Noma, column 6, lines 54 and 55.

In contrast, the present invention recites in claim 21 “rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment.” In other words, claim 21 recites a three-dimensional environment on the client computer. Noma instead only teaches a two-dimensional virtual space on the client computer, which uses X and Y coordinates to locate avatars within the two-dimensional virtual space, with a web page visible underneath. Therefore, Norma does not teach or suggest “rendering a three-dimensional environment on a client computer” as recited in claim 21.

The Examiner cites Noma, Figure 4 and column 6, lines 10-19, shown below, as teaching “rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment.” Office Action dated May 5, 2006, page 3.



**FIGS. 4 to 11** are explanatory diagrams each showing a transition of screens displayed by the client computer 2. In each of these figures, a diagram A on the right-hand side shows a screen displayed by the client computer 2-1 wherein a cat icon is set in advance as an avatar representing the user of the client computer 2-1. On the other hand,

a diagram B on the left-hand side shows a screen displayed by the client computer **2-2** wherein a monkey icon is set in advance as an avatar representing the user of the client computer **2-2**.

Noma, Figures 4A and 4B and column 6, lines 10-19, respectively.

The Noma reference continues on to teach that:

...pictures in the 2-dimensional virtual space comprising avatar icons **23a** and **23b** and balloons **25a** and **25b** showing texts of utterances of the users are displayed on the screen of the client computer **2** as a chat layer **21**. The 2-dimensional virtual space is based on shared data received from the chat server **12**. The shared data is pieces of information each comprising a URL of a web page being browsed, XY coordinates of the avatar, the type of the avatar, a chat character string, a nickname and a user ID as shown in **FIG. 13** to be described later.

On the display screen of the client computer **2**, the chat layer **21** is displayed, being superposed on the HTML display layer **22**.

Noma, column 6, lines 26-38.

In other words, Noma teaches that the chat layer is superimposed on the web page layer and is two-dimensional in nature. Figures 4A and 4B of Noma above, give a false impression that a cube, or three-dimensional type environment, is formed by the lines drawn between two-dimensional virtual space chat layer **21** and HTML web page display layer **22**. However, the lines merely illustrate that two-dimensional virtual space chat layer **21** is to be placed on top of HTML web page display layer **22** and do not illustrate any type of three-dimensional environment. As the passages from the Noma reference clearly indicate above, Noma teaches that a user may view a web page on a client computer through a transparent two-dimensional virtual space, which is juxtaposed over the web page. In addition, avatars present in the two-dimensional virtual space are positioned by using only the X and Y axes, which is further evidence that only a two-dimensional virtual space is taught by the Noma reference. As a result, Noma does not teach or suggest “rendering a three-dimensional environment on a client computer” as recited in claim 21.

Because Noma does not teach or suggest “rendering a three-dimensional environment on a client computer,” Noma cannot teach or suggest “displaying a virtual representation of the shared data in the rendered three-dimensional environment on the client computer” as further recited in claim 21. Consequently, Noma does not teach or suggest these recited claim 21 features. These recited claim 21 features also are not taught or suggested by the Dawson reference, nor does the Examiner cite to any passage of Dawson that allegedly does so. The Examiner only cites Dawson as allegedly teaching “access control information” as recited in claim 21. Dawson teaches a method for controlling “a remote system’s access to a selected application(s) of a host computer system coupled to the remote system. The

host system transfers an access level to the remote system, which indicates whether modifications to the selected application (s) can be made by the remote system.” Dawson, Abstract. As a result, Dawson does not teach or suggest “rendering a three-dimensional environment on a client computer” and “displaying a virtual representation of the shared data in the rendered three-dimensional environment on the client computer” as recited in claim 21 either.

Therefore, since neither Noma nor Dawson teach or suggest “rendering a three-dimensional environment on a client computer” and “displaying a virtual representation of the shared data in the rendered three-dimensional environment on the client computer” as recited in claim 21, then the combination of Noma and Dawson cannot teach or suggest these recited claim 21 features. Accordingly, the rejection of independent claims 21, 43, and 53 as being unpatentable over Noma and Dawson has been overcome.

In view of the arguments above, independent claims 21, 43, and 53 are in condition for allowance. Claims 22-27 and 44-49 are dependent claims depending on independent claims 21 and 43, respectively. Consequently, claims 22-27 and 44-49 also are allowable, at least by virtue of their dependence on allowable claims. Furthermore, these dependent claims also contain additional features not taught by Noma and Dawson.

For example, amended dependent claim 23 of the present invention, which is representative of dependent claim 45, reads as follows:

23. The method of claim 21, further comprising:  
receiving voice information provided by each participant;  
receiving a request to modify the shared data; and  
determining whether the first participant has a sufficient access control level  
based on the access control information.

With regard to claim 23, the Examiner states:

**As per claims 23 and 45**, which depend on claims 21 and 43, respectively, Noma does not further teach of receiving a request to modify the shared data; and determining whether the first participant has a sufficient access control level based on the access control information.

Dawson further teaches of receiving a request to modify the shared data; and determining whether the first participant has a sufficient access control level based on the access control information (see col.2, lines 35-38).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Dawson within the system of Noma by implementing receiving a request to modify the shared data; and determining whether the first participant has a sufficient access control level based on the access control information within the data processing method and apparatus because Dawson teaches that in a shared environment, personal conferencing allows individuals to communicate and access a host computer system remotely and relinquishing complete control of the

system may be detrimental. Therefore when accessing to modify a shared data, one would employ access control such that the control of the host computer system does not fall in the wrong hands.

Office Action dated May 5, 2006, page 8.

Neither Noma nor Dawson make reference to “receiving voice information provided by each participant” as recited in amended claim 23. Support for this amended claim 23 feature may be found in the specification on page 5, lines 10 and 11 and page 15, lines 23-27. Therefore, the combination of Noma and Dawson does not teach or suggest this amended claim 23 feature.

As a further example, dependent claim 27 of the present invention, which is representative of dependent claim 49, reads as follows:

27. The method of claim 21, further comprising:  
receiving a shared data update event indicating a modification to the shared data;  
modifying the shared data according to the shared data update event to form modified data; and  
displaying a modified representation of the modified data in the rendered three-dimensional environment based on the access control level of the first participant.

With regard to claim 27, the Examiner states:

As per *claims 27 and 49*, which depend on claims 21 and 43, respectively, Noma and Dawson teach of further comprising:  
receiving a shared data update event indicating a modification to the shared data (see claim 25 rejection above);  
modifying the shared data according to the shared data update event to form modified data (see claim 24 rejection above); and  
displaying a modified representation of the modified data in the rendered three-dimensional environment based on the access control level of the first participant (see claim 21 rejection above).

Office Action dated May 5, 2006, page 10.

As shown above, the combination of Noma and Dawson does not teach or suggest “rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment” as recited in independent claim 21. Because the combination of Noma and Dawson does not teach or suggest “rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment” as recited in independent claim 21, the combination of Noma and Dawson cannot teach or suggest “displaying a modified representation of the modified data in the rendered three-dimensional environment” as recited in dependent claim 27. Therefore, the combination of Noma and Dawson does not teach or suggest this recited claim 27 feature either.

Accordingly, the rejection of claims 21-27, 43-49, and 53 as being unpatentable over Noma and Dawson has been overcome.

## **II. Added Claims 55 and 56**

This Response to Office Action adds dependent claims 55 and 56. Support for the features recited in added claims 55 and 56 may be found in the specification on page 5, lines 12-22, page 17, lines 22-30, and page 18, lines 12-14. Added claims 55 and 56 also are allowable at least by virtue of their dependence upon allowable independent claims 21 and 43, respectively. Furthermore, these dependent claims also contain additional features not taught or suggested by the cited prior art references used to reject the claims in Section I above.

For example, added dependent claim 55 of the present invention, which is representative of added dependent claim 56, reads as follows:

55. The method of claim 21, wherein the shared data includes three-dimensional data of an image that a participant is able to walk around within the rendered three-dimensional environment, and wherein the image is able to be rotated about three axes by the participant within the rendered three-dimensional environment.

As shown in Section I above, Noma and Dawson do not teach or suggest “rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment” as recited in independent claim 21. Since Noma and Dawson do not teach or suggest “rendering a three-dimensional environment on a client computer associated with a first participant to form a rendered three-dimensional environment” as recited in independent claim 21, then Noma and Dawson cannot teach or suggest that “the shared data includes three-dimensional data of an image that a participant is able to walk around within the rendered three-dimensional environment” and that “the image is able to be rotated about three axes by the participant within the rendered three-dimensional environment” as recited in dependent claim 55. Therefore, Noma and Dawson do not teach or suggest these above-recited claim 27 features.

**III. Conclusion**

It is respectfully urged that the subject matter is patentable over the cited prior art references and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: August 2, 2006

Respectfully submitted,

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